

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/04433

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A47L 01/02; G03D 05/04; G11B 03/58;
 US CL : 15/102, 97.1; 369/72;

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 U.S. : 15/102, 97.1, 103.5, 88.1, 77; 369/72; G11B 03/58;

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3,005,223 A (TAYLOR et al) 24 October 1961 (24.10.1961), column 2, lines 22-62.	1-2, 4-7 -----
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Y		
X	US 4,101,999 A (DOYEL) 25 July 1978 (25.07.1978), column 3 line 48 to column 4 line 41.	1-2, 4, 15-17, 19 -----
--		3, 8-10, 20-22
Y		
X	US 4,202,071 A (SCHARPF) 13 May 1980 (13.05.1980), column 2 lines 3-31 and column 3 lines 16-32.	1-4, 8-11, 15-17, 19, 21-22 -----
--		12-14, 18, 20
Y		
X	US 4,604,672 A (DAVIS et al) 05 August 1986 (05.08.1986), column 5 lines 5-36, column 11 line 64 to column 12 line 11, column 14 lines 37-61.	1, 4-9, 12, 14, 15-16, 19-20 -----
--		10-11, 13, 17-18
Y	US 2002/0129455 A1 (WEI) 19 September 2002 (19.09.2002), pages 1-2.	8, 12-14, 18



Further documents are listed in the continuation of Box C.



See patent family annex.

- Special categories of cited documents:	"T"	later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the International filing date but later than the priority date claimed		

Date of the actual completion of the international search
 20 April 2005 (20.04.2005)

Date of mailing of the international search report
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INTERNATIONAL SEARCH REPORTInternational application No.
PCT/US05/04433**C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 57003206 A (AZUMA) 08 January 1982 (08.01.1982), figure 2.	12, 13
A	JP 54100701 A (OTSUKI) 08 August 1979 (08.08.1979), figures 1-3.	1-22